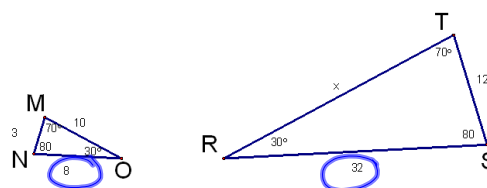
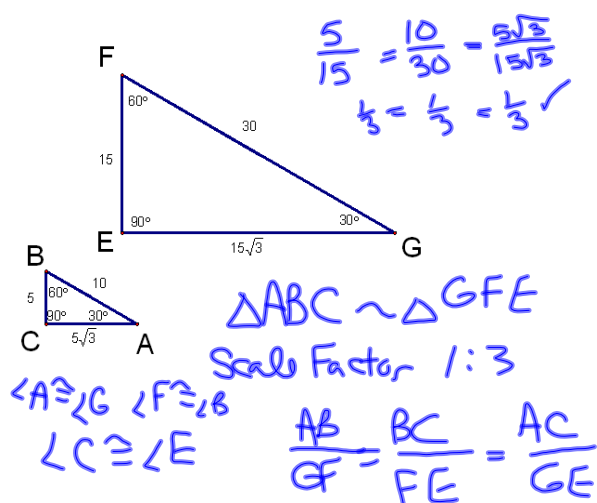


Quiz Next Thursday  
6.1-6.3

## 6-2 Similar ~ Polygons

Two polygons are ~, if

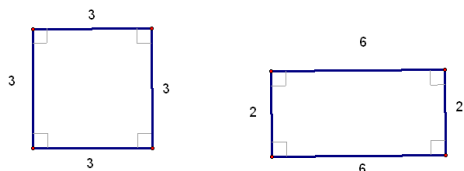
1. corresponding  $\angle$ s are  $\cong$
2. corresponding sides are proportional



Scale Factor  $\frac{8}{32} = \left(\frac{1}{4}\right)$

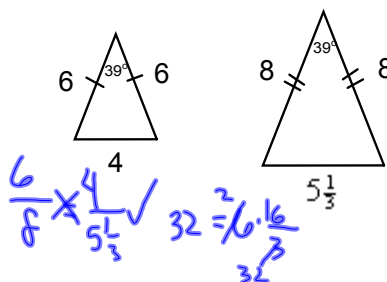
$\frac{1}{4} = \frac{10}{x}$   
 $x = 40$

Are the following figures similar?



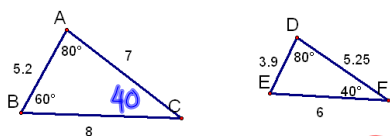
No

$$\frac{3}{2} \neq \frac{3}{6}$$

Are the following figures similar? *yes*

$$\frac{6}{8} \times \frac{4}{5\frac{1}{3}} \checkmark \quad 32 = 6 \cdot \frac{16}{3}$$

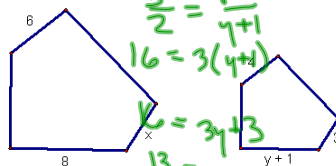
Are the following figures similar?



small med large

$$\frac{5.2}{3.9} = \frac{7}{5.25} = \frac{8}{6}$$

$$1.\bar{3} = 1.\bar{3} = 1.\bar{3}$$

S.F.  $\frac{4}{3}$ The pentagons are similar.  
Solve for x.

$$\frac{3}{2} = \frac{8}{y+1}$$

$$16 = 3(y+1)$$

$$13 = 3y + 3$$

$$10 = 3y$$

$$\frac{10}{3} = y$$

$$\frac{3}{2} = \frac{x}{3}$$

$$x = 4.5$$

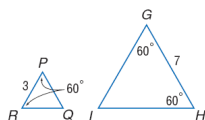
$$\frac{6}{4} = \frac{3}{2} \text{ S.F.}$$

$$\frac{3}{x} = \frac{2}{3}$$

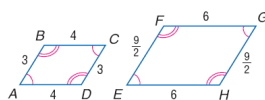
Open to page 293

Determine whether each pair of figures is similar. Justify your answer.

4.

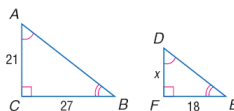


5.



$$\frac{3}{4.5} = \frac{4}{6}$$

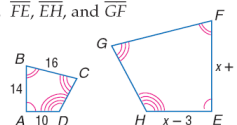
$$.6 = .6 \checkmark$$

Each pair of polygons is similar. Write a similarity statement, and find  $x$ , the measure(s) of the indicated side(s), and the scale factor.6.  $\overline{DF}$ 

$$\triangle ACB \sim \triangle DFE$$

$$\frac{21}{x} = \frac{27}{18}$$

$$x = 14$$

7.  $\overline{FE}$ ,  $\overline{EH}$ , and  $\overline{GF}$ 

$$ABCD \sim EFGH$$

$$\frac{105}{x-3} = \frac{714}{x+5}$$

$$\therefore 5(x+5) = 7(x-3)$$

$$y=23 \quad 5x+25 = 7x-21$$

$$46 = 2x$$

Extended day HW  
p285-286 #s 12-20, 23-25, 33  
p293 #s 11-13, 17-19, 36, 38

Homework  
p. 293-295  
#s 11-15, 17-20, 34-38